

October 3, 2001

Mr. Jonathan S. Smith  
C & S, Inc.  
P. O. Box 39, 2001 Main Street,  
Tell City, IN 47586

Dear Mr. Smith:

Re: Exempt Construction and Operation Status,  
037-14804-00110

The application from C & S, Inc., received on August 29, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, to be located at 301 South Main Street, Huntingburg, Indiana, is classified as exempt from air pollution permit requirements:

- (a) A soil vapor extraction blower, with a maximum capacity of 1350 lb/hr. The soil vapor extraction system is capable of extracting air at a rate of 300 cubic feet per minute.

The following conditions shall be applicable:

1. Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

The VOC potential emissions from the soil vapor extraction system are less than 25 tons per year. Therefore, the Best Available Control Technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply. Any change or modification which may increase soil vapor extraction (SVE) VOC potential emissions to 25 tons per year or more shall obtain OAQ approval before such change may occur.

2. Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

The single HAP and combined HAPs potential emissions from the soil vapor extraction system are less than 10 tons per year and 25 tons per year respectively. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) does not apply. Any change or modification which may increase each single HAP or combined HAPs emissions to 10 tons per year or more or 25 tons per year or more from the soil vapor extraction (SVE) shall obtain OAQ approval before such change may occur.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

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cc: File - Dubois County  
Dubois County Health Department  
Air Compliance - Gene Kelso  
Southwest Regional Office  
Permit Tracking - Janet Mobley  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for an Exemption

**Source Background and Description**

**Source Name:** C & S, Inc.  
**Source Location:** 301 South Main Street, Huntingburg, IN 47542  
**County:** Dubois  
**SIC Code:** 5541  
**Operation Permit No.:** 037-14804-00110  
**Permit Reviewer:** Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from C & S, Inc. relating to the construction and operation of a soil vapor extraction system and moisture separator.

**New Emission Units and Pollution Control Equipment**

The source consists of the following emission units and pollution control equipment:

- (a) A soil vapor extraction blower, with a maximum capacity of 1350 lb/hr, exhausting to stack no. 1. The soil vapor extraction system is capable of extracting air at a rate of 300 cubic feet per minute.
- (b) A particulate filter, with a maximum hourly capacity of 945 lb/hr.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
1	Soil Vapor Extraction	15	0.167	100	112

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on August 28, 2001.

## Emission Calculations

### (c) Soil Vapor Extraction System:

Soil vapor extraction system removes volatile organic compounds from soil beneath the ground surface. By applying a vacuum through a system of underground wells, contaminants are pulled to the surface as vapor or gas.

The following emissions calculations are based on air samples:

Pollutant	Concentration (mg/l)	Flow Rate (cfm)	Annual VOC Emission Rate (tons/year)
Benzene	0.00022	300	0.0012
Ethylbenzene	0.00043	300	0.0021
Toluene	0.00043	300	0.0021
Xylene	0.0026	300	0.0126
MTBE	0.00043	300	0.0021
Total Emissions			0.02

Methodology:

VOC/HAP Emissions = concentration (mg/l) x 28.32 l/cu ft x 2.2E-06 lb/mg x flow rate(cfm) x 60 min/hr x 8760 hr/yr x 1 ton/2000 lb

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	negligible
PM-10	negligible
SO <sub>2</sub>	negligible
VOC	0.02
CO	negligible
NO <sub>x</sub>	negligible

HAP's	Potential To Emit (tons/year)
Benzene	0.0012
Ethylbenzene	0.0021
Toluene	0.0021
Xylene	0.0126
MTBE	0.0021
TOTAL	0.02

- (a) The Potential to Emit of VOC from this source is less than 10 tons per year. The potential to emit of a single HAP is less than 1 ton per year, and that of combination HAPs is less than 2.5 tons per year. Therefore, pursuant to 326 IAC 2-1.1-3, an exemption is granted.

## County Attainment Status

The source is located in Dubois County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Dubois County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

## Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	negligible
PM10	negligible
SO <sub>2</sub>	negligible
VOC	0.02
CO	negligible
NO <sub>x</sub>	negligible
Single HAP	0.0126
Combination HAPs	0.02

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

## Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,  
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and  
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability**

#### **326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit less than one hundred (100) tons per year of all criteria pollutants.

#### **326 IAC 8 (Volatile Organic Sources)**

This source does not fit any of the source categories in 326 IAC 8. Therefore, none of the rules in Article 8 are applicable.

#### **326 IAC 8-1-6 (General Reduction Requirements)**

The VOC potential emission from this source is less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

#### **326 IAC 2-4.1-1 (New Source Toxics Control)**

This source is not a major source of hazardous air pollutants (HAPs). Therefore, 326 IAC 2-4.1-1 does not apply.

### **Conclusion**

The construction and operation of this gasoline service station shall be subject to the conditions of the attached proposed Exemption 037-14804-00110.